

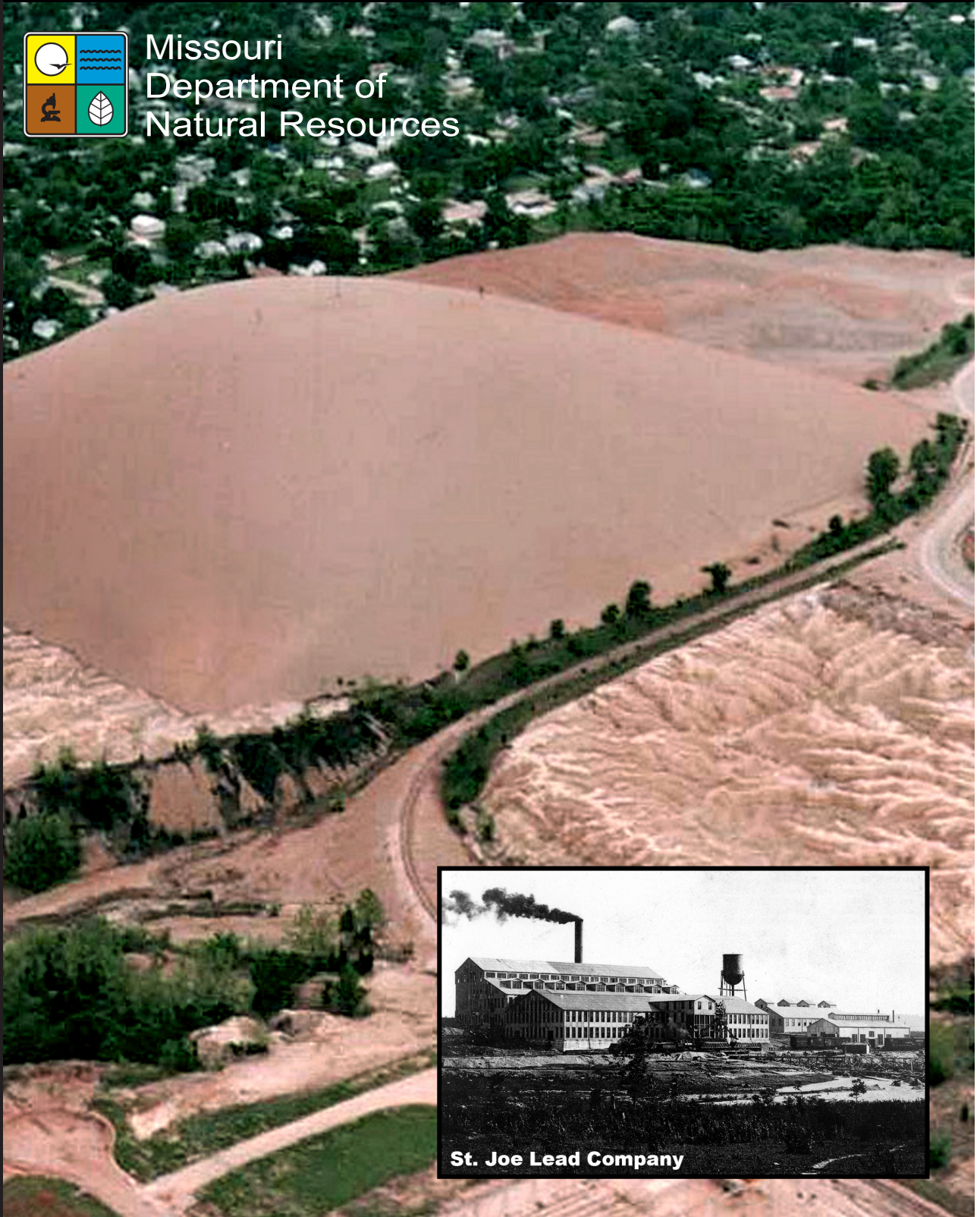
# Hazardous Waste Management Commission Report

January through March 2012

## Quarterly Report



Missouri  
Department of  
Natural Resources



St. Joe Lead Company

### **Hazardous Waste Management Commissioners**

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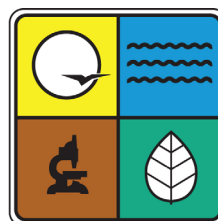
***"The goal of the Hazardous Waste Program is to  
protect human health and the environment from  
threats posed by hazardous waste."***

### **For more information**

#### **Missouri Department of Natural Resources Hazardous Waste Program**

P.O. Box 176, Jefferson City, MO 65102-0176  
[dnr.mo.gov/env/hwp/index.html](http://dnr.mo.gov/env/hwp/index.html)  
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Past issues of the Hazardous Waste Management Commission Report  
are available online at  
[dnr.mo.gov/env/hwp/quarterlyreport.htm](http://dnr.mo.gov/env/hwp/quarterlyreport.htm)



**Missouri Department of Natural Resources  
Hazardous Waste Program**

### March 2012 Program Update

As always, the Hazardous Waste Program has a lot of exciting projects, many of which are of interest to the general public. One of our most important new initiatives is the multi-agency 'lead task force' that is being developed to address the many issues that Missouri's lead mining legacy has had on our state. The department is working with representatives from United States Environmental Protection Agency, Agency for Toxic Substance and Disease Registry, U.S. Corps of Engineers, U.S. Fish and Wildlife Service, Missouri Department of Conservation, Missouri Department of Health and Senior Services, and the Missouri Attorney General's Office on this effort. The primary goal of the task force is to identify human health and environmental impacts from lead mining in Missouri and to coordinate investigations, management, cleanup and restoration of active and former lead sites with federal, state and local environmental and health agencies.

Another 'meeting of the minds' took place at The National Tanks Conference hosted in St. Louis, Missouri, in March 2012. This national conference is the premier underground storage tanks conference at which all aspects of compliance, remediation and management are presented and discussed. This was a great opportunity for department staff (working on underground storage tanks issues) to meet with key individuals from the other states and the Environmental Protection Agency, as well as those within the industry.

One of the most anticipated projects from this quarter is the completed renovation to the Kiel Opera House, due in part to our own Brownfields Voluntary Cleanup Program. Known today as the Peabody Opera House, it was originally part of St. Louis' "City Beautiful" campaign, and now serves as a lavishly appointed performing arts building. Located in downtown St. Louis, this property accommodates seven venues, one of which is a 3,100 seat theater. This landmark is truly a state treasure which we were honored to play a role in reviving!

Rounding out our cooperative efforts for this quarter, the federal facilities section, the Department of Health and Senior Services, and the State Emergency Management Agency have developed additional training specifically for those first responders who work near major radioactive routes. This comprehensive course includes a model procedure, decontaminations guidelines and hands-on exercises.

With these accomplishments in just the first quarter, I am anxiously looking forward to seeing what is ahead in the coming year. It is with great pride that I thank each and every employee of the Hazardous Waste Program for their enthusiastic dedication to these worthy ventures.

Sincerely,



David J. Lamb



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#### **Brownfields/Voluntary Cleanup Section**

The Missouri Department of Natural Resources issued certificates of completion for seven Brownfields/Voluntary Cleanup Program sites from January to March. Brownfields are real property, the expansion, redevelopment or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant.

Through the Brownfields/Voluntary Cleanup Program, private parties agree to clean up a contaminated site and are offered some protection from future state and federal enforcement action at the site in the form of a “No Further Action” letter or “Certificate of Completion” from the state.

#### **Bulk Express Creosote Site - Centerville**

The Department of Natural Resources’ Brownfields/Voluntary Cleanup Program issued a Certificate of Completion for the Bulk Express Creosote Site on MO Highway 72, one mile west of Hwy. 21 near Centerville. The site was contaminated in May 2006 with creosote released from a tanker truck that overturned on a sharp curve on Highway 72. 3,300 gallons of creosote was released. Emergency crews recovered 1,700 gallons of creosote and excavated and stockpiled contaminated soil from the spill site. The creosote ran down a steep ravine and contaminated soil and gravel deposits for approximately 900 feet. The tanker’s operator, Bulk Express Inc., enrolled the property in the Brownfields/Voluntary Cleanup Program after the emergency response phase to complete cleanup of the residual soil contamination and dispose or treat the heavily contaminated soil from the spill site.

In accordance with the department-approved Remedial Action Plan, 2,570 tons of creosote contaminated soil from the spill area and upper portion of the ravine were treated by thermal desorption/oxidation and returned to the site. An additional 850 cubic yards of soil in the lower portion of the ravine was treated with in-situ bioremediation. Groundwater monitoring found no evidence of contamination. The department determined the site is safe for its intended use.

Sunbelt Environmental Services evaluated the site and the available remedial technologies as the lead contractor. The heavily contaminated soil from the spill site as well as soil excavated from the upper portion of the ravine immediately downhill from the spill site was treated on-site by RemTech Inc. using a portable diesel-fired desorption/oxidation unit. This phase of the work was performed in 2008. A total of 2,570 tons of soil was treated, tested and returned to the site.

The lower 500 feet of the ravine contained about 850 cubic yards of soil with lower levels of creosote and a much higher moisture content, which would interfere with the thermal desorption process. This area was treated with in-situ bioremediation. Sunbelt used a commercial microbial culture (System E.T. 20 by Environmental Restoration Services LLC), optimized for creosote decomposition, plus cultures of naturally occurring microbes from contaminated site soil, to formulate an inoculant. The culture was sprayed on shallow soil in the ravine and mixed in with a backhoe several times during August 2007. After 12 months, residual creosote levels in the soil met target levels. Downstream areas were protected from runoff during the entire project with a series of catchment basins.

### **Bulk Express Creosote Site - Centerville (cont.)**

Because of karst conditions in this area of the state and the presence of nearby private wells, a groundwater investigation was performed to ensure water resources were protected. Monitoring wells were installed in the ravine and nearby private wells were also sampled. No evidence of groundwater contamination was found.

The cleanup required a water supply for both the thermal desorption unit and the bioremediation process, and no water supply was readily available. A well was installed by the remediation contractors in the thermal desorption treatment area, which also served as a monitoring point for groundwater. The well was handed over to the property owner at the completion of the project for use in his operations. The owner uses the property for both cattle grazing and a small sawmill. The total cost of the cleanup exceeded \$1 million.

### **Emerson Motor Technologies - Kennett**

The Department of Natural Resources' Brownfields/Voluntary Cleanup Program issued a Certificate of Completion for the Emerson Motor Technologies - Kennett site at 910 Homecrest St. in Kennett. The 36.7-acre site contains a 284,000 sq. ft. building constructed in 1959. Emerson manufactured fans, baseboard heaters and electric motors until the plant was closed in 2006. A Phase I assessment noted a number of recognized environmental conditions. Low levels of chlorinated solvents were found in groundwater samples from the site.

Initial site characterization indicated soil and groundwater concentrations exceeded the Missouri Risk Based Corrective Action default target levels for volatile organic compounds and metals. The Tier 2 risk assessment indicated concentrations in soil and groundwater did not exceed Tier 2 residential Missouri Risk Based Corrective Action risk based target levels, site-wide cumulative risks do not exceed the target risk values and the groundwater plume is stable. No further site characterization and no restrictions for future site uses are necessary. The department determined the site is safe for its intended use.

### **Frankel, Frank & Co. Building – Kansas City**

The Department of Natural Resources' Brownfields/Voluntary Cleanup Program issued a Certificate of Completion for the Frankel, Frank & Co. Building site at 807 Wyandotte St. in Kansas City. The site building is a four-story brick loft-type structure built in 1899. The parking lot associated with the site had a Tanks Section cleanup (#U003980925, Nico Investment Company, 801 Wyandotte) initiated in 1992 and completed in 1994. Uses of the building have been clothing and medical supply manufacturing, barber supplies, pharmaceutical sundries and various wholesale companies.

Asbestos-containing materials, including floor tile, roof flashing, pipe insulation, and paper insulation, lead-based paint and polychlorinated biphenyl-containing bulbs and ballasts were identified in the building. These materials were removed in accordance with an approved remedial action plan, with the exception of some asbestos-containing materials paper insulation above the first floor ceiling, and lead-based paint in several locations throughout the building. The asbestos-containing materials and lead-based paint remaining in place were encapsulated, and an operations and maintenance plan has been approved and filed in the property's chain of title to ensure these areas remain encapsulated. The department determined the site is safe for its intended use. The building will be used for commercial use including office space.

### **Habitat for Humanity St. Louis-JVL Ward 19, 2010**

The Department of Natural Resources' Brownfields/Voluntary Cleanup Program issued a Certificate of Completion for the 2938, 2940, 2942, 2944, 2946, 2948, 2952, 2954, 2956, 2945, 2947, 2951, 2953, 2955 and 2957 Thomas sites in St. Louis. The City of St. Louis is working with Habitat for Humanity to assess and remediate lots within the city to be used as single family housing. These lots were part of a Brownfield Assessment grant in 2008 that identified lead and polycyclic aromatic hydrocarbons above the Missouri Risk Based Corrective Action residential risk-based target levels. As a result of the Brownfield Assessment, several lots were brought into the Voluntary Cleanup Program as the Habitat for Humanity 2009 project. These lots are the remaining parcels that were not enrolled in the program at that time. The site parcels have been historically residentially developed or undeveloped.

Soil remediation activities included the excavation of the upper 3-feet of soil across the entire property using a hydraulically operated tracked excavator. Subsequent excavations were performed at an increased depth where analytical results in the subsurface soil indicated areas of significant impact. Excavations were performed laterally to the property lines.

A vacant historic resident house (with basement) still remains at Lots 44 and 45 (western portion of Excavation #3). Soils were excavated around the footprint of this building during soil removal actions. The department determined the site is safe for its intended use. Habitat for Humanity intends to redevelop the site as single family housing for low-income families.

#### **Highland Terrace/Victorian Manor – O'Fallon**

The Department of Natural Resources' Brownfields/Voluntary Cleanup Program issued a Certificate of Completion for the Highland Terrace/Victorian Manor site at 15 Castle Lane in O'Fallon. The King Arthur's Court Mobile Home Park was built on the site in approximately 1966, using about 3,000 feet of buried water lines made of asbestos cement. The piping was discovered during demolition of the mobile home park in 2008. Following several changes in ownership, it was believed the majority of the pipe remained in the ground and several areas had been graded, possibly disturbing the pipe and spreading asbestos contamination in those areas and in fill piles at the rear of the site.

Exploratory trenching was conducted in 2011 to look for intact asbestos transite pipe, but the pipe had apparently been previously removed. Examination of the ground surface indicated grading had not disturbed some sections of the pipe as previously thought. Fill piles at the rear of the site were spread out, and pipe pieces found on the ground surface and in the fill piles were collected. A total of 55-feet of pipe was recovered and properly disposed. A contingency plan was included in the approved Remedial Action Plan to ensure proper handling and disposal should any additional transite pipe be encountered during redevelopment. The department determined the site is safe for its intended use.

The King Arthur's Court site had a rocky history and a happy ending:

- Violations of demolition regulations by an earlier developer's contractors; financial failure due to the real estate crisis that led to the property being returned to the bank, which took up the remediation project in order to eventually divest itself of the property.

#### **Highland Terrace/Victorian Manor – O'Fallon (cont.)**



- Subsequent failure of the bank itself.
- Transfer of the site to the Federal Deposit Insurance Corporation as a 'toxic asset'.
- Purchase by a new owner, who took immediate and practical steps (with a backhoe) to determine actual conditions at the site.

What everyone assumed would be necessary, a very expensive removal of thousands of feet of intact piping as well as the cleanup of asbestos contaminated soil, turned out not to be the case. In the end, cleanup of the site was much less expensive than predicted and redevelopment was able to proceed safely.

This site brings into sharp focus the importance of understanding the conditions at Brownfield sites in order to make informed decisions. The site will be the new home of a senior housing complex.

### **Huntsville Former Manufactured Gas Plant, or FMGP - Huntsville**

The Department of Natural Resources' Brownfields/Voluntary Cleanup Program issued a Certificate of Completion for the Huntsville former manufactured gas plant site at West Depot Street and Substation Road in Huntsville. This site is a former manufactured gas plant identified on historical Sanborn fire insurance maps. The plant operated between approximately 1870 and 1910. The site was used as an electric substation after demolition of the plant and was a vacant lot owned by Ameren UE when enrolled in the Brownfields/Voluntary Cleanup Program.

Preliminary investigations by Ameren (1994 and 1997) and the department (2000) suggested the possibility of contamination related to the historical plant operations. A comprehensive soil and groundwater investigation in 2004 found coal tar related contamination in surface and deep soils. Creek sediment alongside the site was also affected. Ameren submitted a Remedial Action Plan in 2006 and began excavation of contaminated soil in June of that year.

Approximately 4,700 tons of contaminated soil and other material was removed and disposed off-site in permitted landfills. 85,500 gallons of water were treated on-site and disposed at the local wastewater treatment facility. Limited areas of soil exceeding the site-specific residential target levels remain on-site. The department determined the site is safe for its intended use.

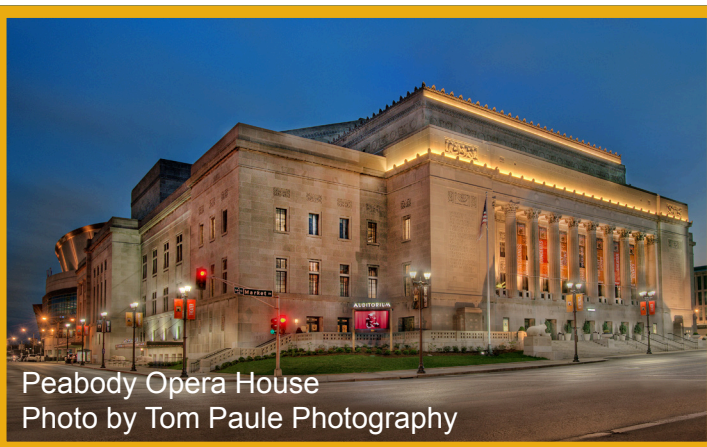
Soil and groundwater at former manufactured gas plants are typically contaminated with carcinogenic coal tar residues left over from the manufactured gas process. Polynuclear aromatic hydrocarbons such as benzo(a)pyrene, and volatile organic compounds such as benzene are typical contaminants. While there are other environmental sources of these chemicals such as creosote, gasoline, cigarette smoke and wood smoke, the high levels of contamination and uncontrolled conditions at most former manufactured gas plants have led to the investigation and cleanup of many of these sites in the last several decades. This particular plant was relatively small and contamination was proportionally light. The property is now suitable for a number of non-residential uses, such as green space, industrial or commercial use. Future use of the property will be restricted to non-residential through an environmental covenant.

### **Kiel Opera House Redevelopment – St. Louis**

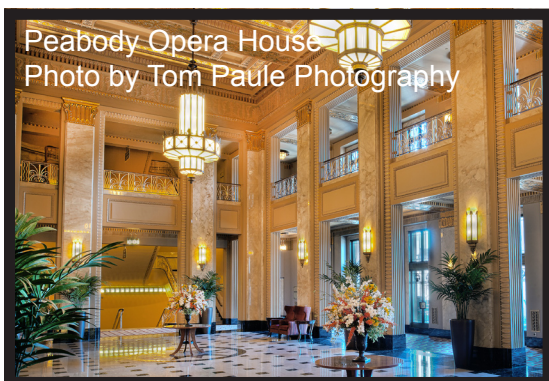
The Department of Natural Resources' Brownfields/Voluntary Cleanup Program issued a Certificate of Completion for the Kiel Opera House Redevelopment site at 1400 Market St. in St. Louis. A 68,180 square foot masonry building with three stories and a basement is located on the site.

The building was built in 1934 as a municipal opera house and is a landmark in St. Louis. Prior to the current structure, the land use was a combination of residential, commercial and hotels going back to at least 1875 or earlier. No recognized environmental concerns were identified in the Phase I Report. Asbestos-containing material and lead-based paint were found throughout the building.

The contaminants identified at the



Peabody Opera House  
Photo by Tom Paule Photography



Peabody Opera House  
Photo by Tom Paule Photography

site were asbestos-containing material, lead-based paint and miscellaneous hazardous materials. The miscellaneous hazardous materials were removed and disposed. Asbestos-containing material and lead-based paint were either removed and disposed or encapsulated. The only exceptions to this are the decorative features containing lead-based paint on the walls and ceilings of the building. Because it is unlikely this structure will ever be used for residential purposes and to preserve the historic features of the building, it was decided these decorative features would be

cleaned of loose debris and repainted, but could remain unencapsulated. An operations and maintenance plan to govern inspection, maintenance and repair of all remaining asbestos-containing material and lead-based paint was filed in the chain of title for the property. The department determined the site is safe for its intended use.

The former Kiel Opera House has been redeveloped into the Peabody Opera House, a civic performing arts building. Redevelopment of the property was aided by financial incentives from the Brownfields Redevelopment Program at the Missouri Department of Economic Development.

### Sites in the



Main Theater  
Photo by Todd Morgan

## Brownfield/Voluntary Cleanup Section

	Active	Completed	Total
<b>JANUARY</b>	249	639	888
<b>FEBRUARY</b>	250	644	894
<b>MARCH</b>	252	644	896

### New Sites Received

#### JANUARY

Kirksville FMGP - Dental School, Kirksville  
Northwest Plaza Mall, St. Ann

#### FEBRUARY

Alliance Medical Warehouse, Russellville  
Kelley Acree Building, St. Louis  
Citadel Plaza, Kansas City  
MicroFinish Facility, St. Louis  
Tommy Clift Property, Conway  
Cupples Station Building 9, St. Louis

#### MARCH

QuikTrip 202, Independence  
Shapiro Brothers Festus Site, Festus  
Cass Bank, St. Louis

### Sites Closed

#### JANUARY

Emerson Motor Technologies - Kennett, Kennett  
Habitat for Humanity St. Louis-  
JVL Ward 19 2010  
Project, St. Louis

#### FEBRUARY

Huntsville FMGP, Huntsville  
Bulk Express Creosote Site, Centerville  
Highland Terrace/Victorian Manor, O'Fallon  
Kiel Opera House Redevelopment, St. Louis  
Frankel, Frank & Co. Building, Kansas City

#### MARCH

The Department of Natural Resources' Drycleaning Environmental Response Trust, or DERT, Fund provides funding for the investigation, assessment and cleanup of releases of chlorinated solvents from dry cleaning facilities. The two main sources of revenue for the fund are the dry cleaning facility annual registration surcharge and the quarterly solvent surcharge.

### Registrations

The registration surcharges are due by April 1 of each calendar year for solvent used during the previous calendar year. The solvent surcharges are due 30 days after each quarterly reporting period.

Calendar Year 2011	Active Dry Cleaning Facilities	Facilities Paid	Facilities in Compliance
Jan - Mar 2012	210	99	47.14%

Calendar year 2012	Active Solvent Suppliers	Suppliers Paid	Suppliers in Compliance
Jan - Mar 2012	11	5	45.45%

### Cleanup Oversight

Calendar year 2012	Active Sites	Completed Sites	Total
Jan - Mar 2012	24	10	34

### New Sites Received 2

### Sites Closed 0

<b>JANUARY</b> American Cleaners (Ballwin), Ballwin	<b>JANUARY</b> none
<b>FEBRUARY</b> U.S. Cleaners (Lindbergh Blvd.), St. Louis	<b>FEBRUARY</b> none
<b>MARCH</b> none	<b>MARCH</b> none

### Reimbursement Claims

The applicant may submit a reimbursement claim after all work approved in the work plan is complete and the DERT Fund project manager has reviewed and approved the final completion report for that work. The DERT Fund applicant is liable for the first \$25,000 of corrective action costs incurred.

	Received	Under Review	Paid/Processed
JANUARY	3	4	3
FEBRUARY	3	9	5
MARCH	7	11	2

	Received	Under Review	Paid/Processed
JANUARY	\$38,677.51	\$142,525.11	\$102,962.56
FEBRUARY	\$137,417.56	\$238,765.28	\$60,461.94
MARCH	\$88,443.00	\$166,256.15	\$43,566.00

### Nine reimbursement claim(s) were processed/paid during this period

American Cleaners	Bridgeton	\$25,000.00
American Cleaners - University City	University City	\$9,960.00
Bright and Free Laundry & Dry Cleaners	St. Louis	\$20,204.82
Busy Bee Laundry	Rolla	\$11,252.20
Fenton Plaza 48	Fenton	\$21,766.47
First Capitol Cleaners	St. Charles	\$2,224.00
Premier Dry Cleaners of KC	Kansas City	\$43,566.00
Tri State Service Co - E. Trafficway Site	Springfield	\$158.53
Tri-States Service Company	Springfield	\$97,858.48

Total reimbursements as of March 31, 2012: \$1,775,564.64

DERT Fund Balance as of March 31, 2012: \$1,358,592.29



## Inspections and Assistance

### Regional Office Hazardous Waste Compliance Efforts

- Conducted 99 hazardous waste generator compliance inspections:
  - 24 at large quantity generators.
  - 27 at small quantity generators.
  - 33 at conditionally exempt small quantity generators.
  - 11 at E-waste recycling facilities.
  - One at a resource recovery facility.
  - Three targeted re-inspections.
- Conducted two compliance assistance visits at hazardous waste generators.
- Issued 46 Letters of Warning and three Notices of Violation requiring actions to correct violations cited during the 99 inspections conducted.
- Received and investigated 69 citizen concerns regarding hazardous waste.

### Hazardous Waste Compliance and Enforcement Efforts

- Conducted 12 inspections of commercial hazardous waste treatment/storage/disposal facilities, one of which resulted in the issuance of a Notice of Violation.
- Conducted three inspections of non-commercial hazardous waste treatment/storage/disposal facilities. Conducted one case development inspection.
- Issued four penalty negotiation offer letters.
- Worked with the Attorney General's Office to prepare three settlement agreements.
- Resolved and closed 10 hazardous waste enforcement cases.
- Received 17 new enforcement cases and issued one letter of intent to initiate enforcement action.

### Tanks Compliance and Enforcement Unit

- In addition to performing tank inspections and corresponding with tank owners and operators about compliance actions, staff answered questions from the regulated community on the new underground storage tank regulations that went into effect Dec. 30, 2011. The new regulations are helping the department keep pace with the rapid development of new equipment in recent years to better align language and requirements with the industry of today and to help prevent future releases. The regulations included expanded oversight authority for new tank installations, required closure for all out-of-use tank systems, better assessments for steel tanks to remain in use, more detailed reporting of underground storage tank system tests and evaluations and clarification of vague or ambiguous language. As we learn more about these new regulations, and technologies, we will provide webinars, webpage postings and an email service to help answer questions.

### **Tanks Compliance and Enforcement Unit (cont.)**

- EPA recently proposed changes to the federal underground storage tank regulations as well and the department has drafted comments to these proposed changes.
- The National Tanks Conference, held every 18 months, was hosted in St. Louis in March 2012. This national conference is the premier underground storage tanks conference at which all aspects of compliance, remediation and management are presented and discussed. This was a great opportunity for the department staff members who work with underground storage tanks to meet with key individuals from the other states, industry and EPA.
- The Missouri Legislature passed a bill during the 2011 session for the Petroleum Storage Tank Insurance Fund to initiate action for underground storage tank operator training. Heather Peters of the Tanks Compliance and Enforcement Unit is currently serving as the liaison with Petroleum Storage Tank Insurance Fund on this project, working with staff from the Tanks Section and other department staff and management to provide input and support.
- Tank inspectors continue to inspect every new tank installation. These inspections help confirm and document the equipment installed with the goal of ensuring installations are conducted in accordance with manufacturer requirements and industry standards. These efforts have increased our knowledge of and valuable working relationship with the companies doing the installations.
- The Tanks Compliance and Enforcement Unit continue to use the expedited enforcement process for financial responsibility non-compliance previously approved by the Hazardous Waste Management Commission. This process has helped the department to maintain a compliance rate of approximately 98 percent on financial assurance requirements. Due to some reorganization within the program, initial notification actions as well as the enforcement actions are now being conducted in the Tanks Compliance and Enforcement Unit. The department has gained efficiency by reducing the number of staff sending the notification letters, conducting telephone calls and preparing referrals to the Attorney General's Office. We believe this process and the continued efforts of the Attorney General's Office on these cases will help keep the number of facilities without a documented financial responsibility mechanism to a very low number.
- From January through March 2012, the Tanks Compliance and Enforcement Unit staff created 13 enforcement records for financial responsibility violations. Tanks Compliance and Enforcement Unit staff resolved eight enforcement cases, including five that also had financial responsibility violations. The Tanks Compliance and Enforcement Unit also referred eight facilities to the Attorney General's Office for enforcement action for a continuing financial responsibility violation.

### **Polychlorinated Biphenyl, or PCB Inspector**

The inspector conducted 20 compliance inspections at various types of facilities throughout the state. The inspector's reports are forwarded to EPA Region 7, which has authority for taking any necessary enforcement action regarding polychlorinated biphenyls according to the Toxic Substances Control Act.

### **Hazardous Waste Transporter Inspector**

The inspector conducted 22 commercial vehicle inspections, during which two vehicles were placed out of service. As part of the Commercial Vehicle Safety Association's protocol, the department sends the reports to the Missouri State Highway Patrol. The transporter must certify to the patrol the violations were corrected.

The inspector also issued three Notices of Violation to unlicensed hazardous waste transporters, two Notices of Violation to generators who hired unlicensed transporters and three Letters of Warning to transporters who failed to comply with reporting requirements.

The inspector sent 33 letters to companies that were inactive, unregistered or conditionally exempt small quantity generators that shipped either small or large quantities of hazardous waste. These facilities are required to register as generators with the department.

As of March 31, there were 231 licensed hazardous waste transporters in Missouri.

### **EBV Explosives Environmental Company - Joplin**

EBV Explosives Environmental Company is a permitted hazardous waste treatment facility in Joplin. Inspectors found the facility failed to:

- Close containers in the 90-day storage area.
- Document all daily and weekly inspections.
- Failed to notify the Emergency Response Hotline and the National Response Center about an emergency involving hazardous waste.

As a result of the department's actions, the facility revised internal procedures for reporting emergencies involving hazardous waste; purchased new lids for hazardous waste containers and conducted additional training to ensure proper closure; and implemented additional managerial checks to ensure inspections are conducted as required.

The civil penalty of \$8,272 was sent to the Jasper County School Fund.

### **Cloud Manufacturing - Union**

Cloud Manufacturing is an aerosol packager located in Union. Inspectors found the facility had:

- Failed to determine if its wastes were hazardous.
- Operated as a hazardous waste treatment, storage and disposal facility without a permit.
- Failed to use a used oil transporter who had obtained an Environmental Protection Agency identification number.
- Failed to clean up oil spills.
- Failed to label containers "Used Oil".
- Failed to use a licensed hazardous waste transporter.

As a result of the department's actions, the facility agreed to inventory all materials, make a waste determination and dispose of all hazardous waste by Jan. 31, 2012. They also agreed to pay a \$30,000 penalty to the Franklin County School Fund.

### **Wal-Mart - Bentonville, Arkansas**

Wal-Mart owns a chain of retail stores. Its corporate headquarters is located in Bentonville, Arkansas. Wal-Mart contracted with a company sometime before 2008 to repackage certain household products, such as fertilizers and pesticides for re-sale. These products were improperly managed and as a result both Wal-Mart and the contracted company were issued notices of violation for:

- Failure to determine if wastes were hazardous.
- Failure to utilize a permitted treatment, storage or disposal facility.
- Failure to demonstrate legitimate recycling.

Wal-Mart properly removed and disposed of the materials and entered into a settlement agreement with the department for civil penalties and cost recovery.

Part of the settlement included the payment of a \$214,378 penalty to the Newton County School Fund and an agreement to complete a Supplemental Environmental Project worth \$1,050,000. The Supplemental Environmental Project funds will be used to conduct collections of pesticides from households and farmers at various locations in Missouri. The collection program will be operated through a contractor and overseen by the department. It is scheduled to begin in summer 2012.

### **Solvent Recovery LLC - Kansas City**

Solvent Recovery is a permitted hazardous waste storage facility located in Kansas City, Missouri. Inspectors found the facility had failed to close a hazardous waste container while in storage.

As a result of the department's actions, the facility corrected the violation during the inspection on June 22, 2011, and agreed to conduct additional training of employees about the importance of properly closing containers.

The civil penalty of \$810 was sent to the Jackson County School Fund.

### **Green Ribbon Schools**

Hazardous Waste Enforcement Unit staff assisted in the development of a hazardous waste evaluation for the Department of Elementary and Secondary Education's Green Ribbon School program. Staff also reviewed and scored school applications using the evaluation. Green Ribbon Schools is a U.S. Department of Education initiative designed to recognize schools that save energy, reduce costs, feature environmentally sustainable learning spaces, protect health, foster wellness, and offer environmental education to boost academic achievement and community engagement.



### Changes at the Bannister Federal Complex

What Kansas City area speedway had its inaugural race won by a driver with an average speed of 107 miles per hour? It might not be the one you think. In 1922, Tommy Milton won the \$30,000 prize for a 300 mile race run on a wooden board track at the Kansas City Speedway. It was located at 19th and Troost, a location now known as the Bannister Federal Complex. The track was short-lived and held its final race



in 1924. On July 4, 1942, Harry Truman broke ground at the location of the former speedway. The U.S. Navy built a large manufacturing facility that would eventually become the Bannister Federal Complex.



Over the years it has been home to companies such as Allied Signal, Bendix, Honeywell Federal Manufacturing & Technologies LLC, Pratt and Whitney and Westinghouse Electric Corp. It has also been associated with federal agencies such as the Atomic Energy Commission, Defense Finance and Accounting Service, Federal Aviation Administration, General Services Administration, Internal Revenue Service, National Archives and Records Administration, National Nuclear Security Administration, National Oceanic and Atmospheric Administration and U.S. Marine Corps.

The 300-acre complex is located at 1500-2000 E. Bannister Road in Kansas City, Missouri, approximately 13 miles south of downtown Kansas City, within the incorporated city limits. The complex is bordered on the north by Legacy Park, east by the Blue River and the Blue River Parkway, south by Indian Creek and Bannister Road and west by Troost Avenue.

### Site History

From 1943 to 1945, Pratt and Whitney used the facility to build Double Wasp aircraft engines for the U.S. Navy in support of World War II. The Department of Defense also built a landfill on part of the property to be used as a disposal site for the complex.

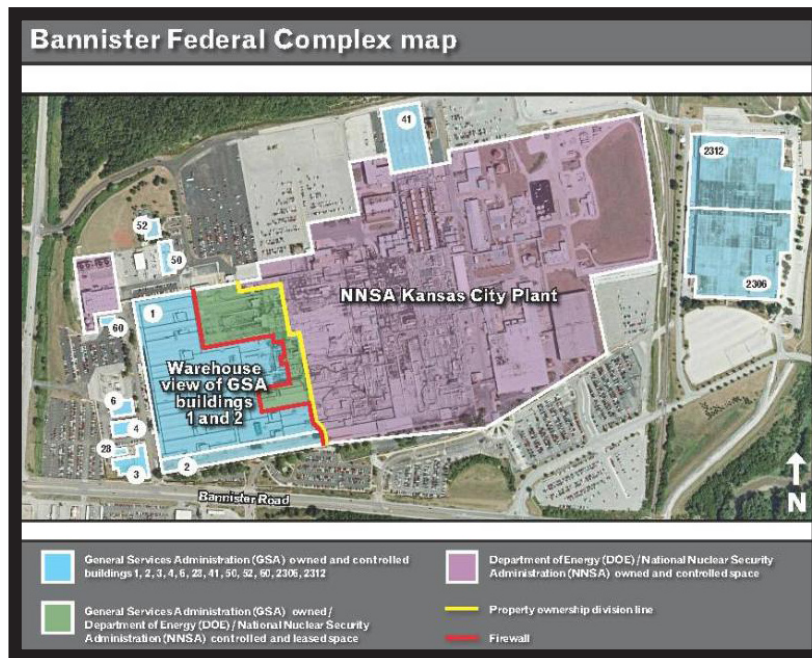


*The Grumman F6F-3 with a Pratt & Whitney R2800 Double Wasp engine*

In 1948, the main building was no longer needed for manufacturing by the defense department and turned over to the War Assets Administration, who used the building as a warehouse and housing for several private and governmental operations. In 1948, the building was transferred to the Department of the Navy, which leased part of the building to Westinghouse. Westinghouse built jet engines at in the main manufacturing building for the U.S. Navy until 1961.

In 1949, Westinghouse subleased part of the main manufacturing building to Bendix Corp. Bendix had been contracted by the Atomic Energy Commission to manufacture electrical, mechanical, plastic and other non-nuclear components of nuclear weapons. This part of the building became known as the Kansas City Plant. Between 1984 and 1999, Bendix merged with Allied Corp., which merged with Signal Corp. and became Allied Signal Inc. Allied Signal later bought Honeywell Federal Manufacturing & Technologies LLC.

In 1964, the landfill was closed and the property was transferred to the General Services Administration, a federal agency that manages government assets, including government-owned and leased buildings. The General Services Administration operated a warehouse in the western part of the main building while Bendix continued operating the Kansas City Plant for the Atomic Energy Commission in its part of the main building. In 1974, the commission was abolished and custody of the Kansas City Plant passed to the Energy Research and Development Administration and finally to the U.S. Department of Energy in 1977, which took ownership of the plant. Bendix continued operating the Kansas City Plant for the Department of Energy. In 2000, the Department of Energy created the National Nuclear Security Administration that now manages the Kansas City Plant.



### Current Site Operations

The Bannister Federal Complex is currently owned by two agencies: the Department of Energy and the General Services Administration. The Kansas City Plant occupies 136 acres of the complex, is owned by the Department of Energy, and operated by Honeywell Federal Manufacturing & Technologies LLC. The General Services Administration owns the remaining 164 acres and leases space to other federal agencies, which include the Federal Aviation Administration, National Oceanic and Atmospheric Administration and U.S. Marine Corps.



*The Bannister Federal Complex – Department of Energy's Kansas City Plant*

The Kansas City Plant currently employs about 2,600 people and continues to manufacture electrical, mechanical, plastic and other non-nuclear components of nuclear weapons. Acids, alkalines, solvents, acid and alkaline contaminated solid waste, solid debris waste, waste oil, wastewater treatment sludges and toxic metals are stored on-site under generator storage requirements until it is either treated at the plant's industrial wastewater pre-treatment facility or shipped off-site to a permitted hazardous waste treatment, storage and disposal facility.



**Department of Energy Environmental Cleanup Activities**

Remediation of the federal complex began in 1983, but most corrective action activity started in 1989. Remediation, sometimes used interchangeably with the terms cleanup or corrective action, is the process of removing, containing, isolating or treating hazardous waste and related chemical constituents that have been or threaten to be released to the environment, in order to protect the public and environment from the harmful effects of the release.

On June 23, 1989, the Department of Energy voluntarily entered into a 3008(h) Corrective Action Administrative Order on Consent with EPA, agreeing to investigate and perform corrective action at their part of the federal complex. The order initially listed 35 solid waste management units as possible release sites, including two lagoons and an underground tank farm. During the next 10 years, eight more solid waste management units were identified. Releases from the underground tank farm, a trichloroethylene reclamation facility, a plating building and other industrial practices resulted in soil contamination and large groundwater plumes containing solvents and petroleum products.

There are two known historical releases of polychlorinated biphenyl, or polychlorinated biphenyls, from the plant. Polychlorinated biphenyls were used in transformers, other electrical equipment, hydraulic oil, caulking compounds and elastic sealant. In 1969, an expansion joint failed and released approximately 1,500 gallons of polychlorinated biphenyl oil to a gravel area. About 900 gallons of the PCB oil entered the storm sewer system and released to Indian Creek. Despite cleanup efforts at the time of the spill, residual polychlorinated biphenyl remained in the creek bottom sediments. Shortly after the spill, Indian Creek was rerouted and the PCB contamination was left in place at depth alongside and underneath the box culvert. In 1971, about 1,100 gallons of Therminol FR-1 (pure polychlorinated biphenyl), which was used as a heat transfer fluid in plastic injection molding, was released to the ground near a storm water drain when the heat transfer fluid lines broke. Some of the polychlorinated biphenyl entered the storm sewer system and released to Indian Creek through the newly installed box culvert. This area of contamination is located south of the main manufacturing building in the former Indian Creek channel.

On Oct. 6, 1999, the department issued a Missouri Hazardous Waste Management Facility Part I Permit and EPA issued a Hazardous and Solid Waste Amendments Part II Permit to the Department of Energy. These permits transferred the oversight responsibility and authority for the investigation and corrective action activities from EPA to the department. EPA terminated its Corrective Action Order and the corrective action process continued under Part I Permit. The Part I Permit required the Department of Energy to perform post-closure care for the two closed lagoons and underground tank farm, as well as operate, maintain and monitor all corrective action final remedies on its part of the federal complex. The Part II Permit covered regulatory requirements Missouri had either not yet adopted or had adopted but EPA had not yet authorized.

### The General Services Administration Environmental Cleanup Activities

The General Services Administration is currently performing environmental remediation activities on its portion of the site under the Comprehensive Environmental Response, Compensation and Liability Act, or CERCLA, with EPA providing regulatory oversight.

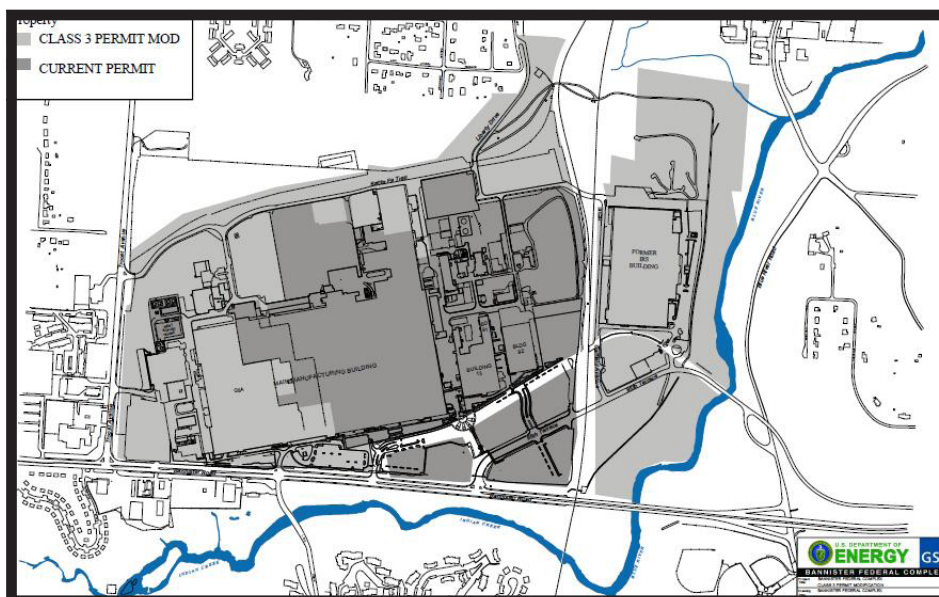
The closed landfill is located on the General Services Administration part of the federal complex. The U.S. Army Corps of Engineers is responsible for performing the environmental investigation and cleanup of the landfill under the Formerly Used Defenses Sites Program, with the department providing regulatory oversight. The presence of solvents has been confirmed in the groundwater in the area of the landfill. The U.S. Army Corps of Engineers is continuing its investigation.

### Class 3 Permit Modification

On Sept. 1, 2011, the Department of Energy and General Services Administration submitted a Class 3 Permit Modification request to the department and EPA.

They proposed to modify the Department of Energy's Missouri Hazardous Waste Management Facility Part I Permit and the Hazardous and Solid Waste Amendments Part II Permit to include the entire Bannister Federal Complex, both the Department of Energy and General Services Administration-owned properties, under the authority of the permits and add the General Services Administration to the permits as a permittee. The permit modification request also included items such as:

- Updating the groundwater monitoring and pumping system and revising the point of compliance wells.
- Preparing a Description of Current Conditions Report and a risk screening to summarize current environmental conditions at the federal complex.
- Revising the Community Relations Plan.
- Conducting a PCB fate and transport study.





### **Class 3 Permit Modification (cont.)**

The Department of Energy's existing hazardous waste permits expired Oct. 6, 2009. However, because they submitted a timely permit application for renewal of their existing hazardous waste permits, Missouri and federal regulations allow the existing hazardous waste permits to continue in effect until the department and EPA issue or deny new hazardous waste permits. The Department of Energy asked to have their permits modified before their hazardous waste permits are renewed.

During the permit modification process, the department and EPA worked together to use every available outlet to inform Missourians about the proposed modifications and encourage them to provide input and share their concerns with the Missouri Department of Natural Resources, the Department of Energy and the General Services Administration. State and Federal regulations require we send a notification letter to everyone listed on the facility's mailing list, publish a legal notice announcing the beginning of the 45-day public comment period and broadcast a radio announcement.

In addition to those public participation requirements, the department held a public availability session and public hearing about the draft permit modifications at the local union hall. The public hearing information was included on the department's Calendar of Events and the State Open Meetings Calendar. An email notification was sent to the designated contacts for the other federal complex tenants and the Community Advisory Panel members. The department posted the permit modification request, draft Part I and Part II Permit Modifications and the public comment period and public hearing information on the department's website. A news release was sent out a week before the hearing to remind the public about the time and location. One of the local residents helped spread the word through Facebook and Twitter.

### **Site Future**

The Department of Energy is preparing to move the Kansas City Plant to a location about six miles south of the Bannister Federal Complex. The move is expected to begin in November 2012 and completed in 2014. The General Services Administration also recently announced its intention to leave the Bannister Federal Complex in roughly the same time frame. Although the Department of Energy and the General Services Administration will no longer be housed at the Bannister Federal Complex, they will remain responsible for remediation obligations at the site unless a new owner or operator assumes liability. Potential reuse or redevelopment opportunities for the property are being explored, but the future use of the Bannister Federal Complex is undetermined as of the date of this article.

### Comprehensive Strategy for Managing Lead Contamination in Missouri

The Superfund Section is heading up a department effort to host a multi-agency 'lead summit' meeting scheduled for April 26 in Jefferson City. The department is welcoming representatives from EPA Region 7, the Corps of Engineers, U.S. Fish and Wildlife Service, the Department of Conservation, Department of Health and Senior Services and Attorney General's Office. The primary goal of the meeting is to revisit a 2005 strategy developed to manage issues of lead contamination in Missouri and begin work on a comprehensive new strategy for moving forward.

Starting in the 18th Century, Missouri was a global leader in lead production for 100 years. In that time, more than 17 million tons of lead, valued at nearly \$5 billion, was removed from Missouri's mines. Lead mining, milling and smelting continues today in parts of southeast Missouri. Historically, lead mining occurred in three main 'districts' in Missouri, shown by colored circles in the map. Today, the only active mining and milling occurs in the New Lead Belt portion of the Southeast Mining District. The only active primary lead smelter in North America is just south of St. Louis in the town of Herculaneum.



Figure 2. The National Site, Park Hills, MO

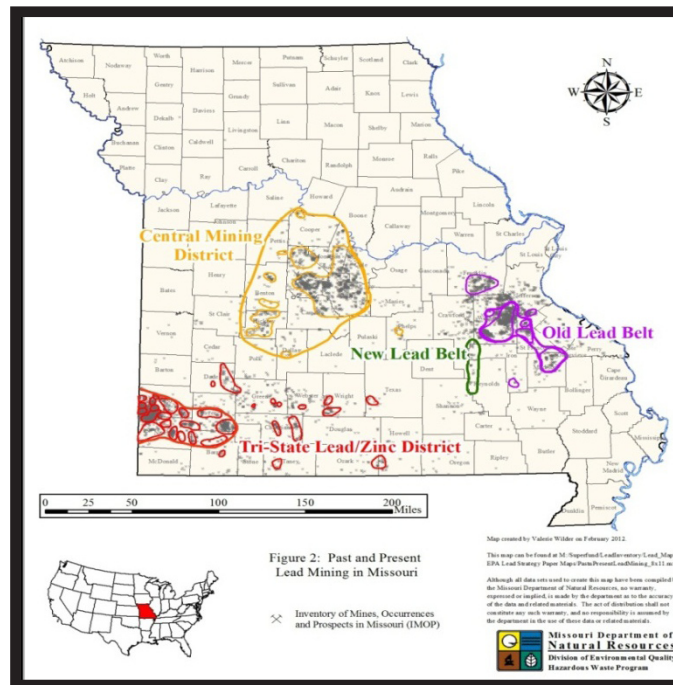


Figure 1. Lead mining, milling and smelting

The positive economic benefits of lead production are now tempered by negative impacts to human health and the environment caused by mining-related contamination. Lead contamination was documented at residential properties, in public drinking water supplies, private drinking water wells, public lands, ambient air and in streams and rivers across large portions of these mining districts.

Large chat piles are the most visually prominent legacy of Missouri's mining history. These chat piles were produced from the milling of mined lead ore, and are familiar sites in the southeastern portions of the state. The National Site, located in Park Hills was home to the largest waste pile in Missouri. The department, together with its partner agencies, has been working to address these issues for decades.

Tremendous progress is being made in assessing and cleaning up historic mining and smelting sites, reducing exposure of Missourians to lead contamination and improving regulations of active mining operations.

The efforts for cleanup are paying off. Lead contaminated soil from thousands of residential and public properties has been remediated and because of less exposure, previously elevated blood-lead levels in children are dramatically lower in these affected counties.



Figure 3. Lead Mine Reclamation in Madison County

Thousands of acres of mine wastes were stabilized by isolating sources of contamination facilitators such as water and wind erosion. These eroding chat piles no longer contaminate the surrounding communities and watersheds. The stabilization of mine waste areas has also greatly reduced inappropriate uses of mine waste by individuals and communities.

Significant progress is being made. But while most of the large sites where human health impacts are the driver for action were identified and cleanup activities are completed or are underway, more isolated mining impacted areas and populations still need to be investigated and prioritized for cleanup. Also, ecological impacts in affected watersheds need to be fully evaluated and addressed. Many of the remaining problems will be difficult and expensive to address. Following is a just a partial list of issues tied to lead mining in Missouri. It illustrates how far reaching and complex the topic is.

- Human health effects.
- Actively regulated mining sites.
- Mine reclamation.
- Lead mine tailings dams.
- Superfund sites.
- Investigation of historic lead mining sites.
- Abandoned open mine shafts.
- Ambient air nonattainment areas.
- Impaired surface water.
- Clean Water Act NPDES permits.
- Fish advisories.
- Natural Resource Damage, or NRD, Assessment and Restoration.

In 2005 an overall strategy was developed by the department working with its partner agencies to manage the wide range of issues surrounding Missouri's past and current lead mining heritage. Part of the April meeting agenda is reviewing the 2005 strategy, taking stock of developments that have occurred over intervening years and charting a course for the future management of lead mining issues in the state.

A 2012 Lead Strategy white paper will be published on the department's webpage shortly after the April meeting. This document will provide background information, describe the scope of the problem, include detailed site-specific information and summarize the multi-agency strategies developed to address these issues.

### **2012 National Tanks Conference St. Louis, MO**

The 2012 National Tanks Conference was hosted by the State of Missouri on March 18 to 21 in conjunction with the New England Interstate Water Pollution Control Commission, the U.S. Environmental Protection Agency's Office of Underground Storage Tanks and the Association of State and Territorial Solid Waste Management Officials. The Missouri Department of Natural Resources, the Department of Agriculture and the Petroleum Storage Tank Insurance Fund partnered together to make this a very successful conference.

The event provided learning and networking opportunities for federal, state and tribal colleagues in the underground storage community. The focus of the conference was about progress, priorities and plans for the pursuit of a common goal to find new and better ways to work together to protect human health and the environment from tank releases.

More than 600 state and federal regulators attended the three day conference including owners and operators of petroleum storage tanks, equipment operators and more.

Two department staff members served as representatives on the 2012 National Tanks Conference Planning Team, along with members from the Department of Agriculture and the Petroleum Storage Tank Insurance Fund.

Department staff spoke at the breakfast meeting, attended several workshops, helped at the registration desk, moderated sessions, served as room monitors at several sessions, organized the airport tour and spoke at several sessions.

#### **The presentations conducted by the department included:**

- How Missouri Overcame The Challenges Of The Collection Of Bad Data In Evaluating The Vapor Intrusion Pathway.
- Measuring Progress In Closing Out Temporary Closed Tanks.
- Addressing The Tank Cleanup Backlog In Missouri.
- "Making The Database Work For Us", "Improving Compliance By Building A Relationship With Your Regulated Community".
- Information And Discussion On High-Throughput Facilities.
- Gas Station Down: Preparing For And Recovering From Natural Disasters.

### **DNR Attends the Annual Petroleum and Convenience Store Association Exposition**

Staff from the Hazardous Waste Program Tanks Section recently attended the Petroleum and Convenience-Store Exposition of Mid-America held Feb. 24 through 25 in Bartle Hall at the Kansas City Convention Center. The Petroleum and Convenience-Store Exposition of Mid-America is the premier Midwest tradeshow with more than 4,000 attendees from the four state area of Missouri, Kansas, Iowa and Nebraska. This regional tradeshow attracts many key industry leaders. This show features the latest in petroleum and convenience store products, tank system equipment, hardware, soft goods, technology and the hottest new trends and services.

Staff had a chance to meet and inform members of the industry in an informal setting. Materials displayed included the Missouri Resources magazine, a variety of the department underground storage tank management fact sheets and other underground storage tank publications. Many questions were answered, policies discussed and even a few compliments were received.

Staffing the booth were Chris Viet, Dan Scollan, Mike Davis, (Tanks Closure Unit) Rick Brown, (Closure, Release and Investigations Unit) Bobbie Cabaret, Mike Martin, Heather Peters, (Compliance and Enforcement Section Petroleum Storage Tank Enforcement Unit) and Ken Koon (Tanks Section Chief).

### **Tanks Section Planning Workshop at the Missouri Waste Coalition Conference**

The Hazardous Waste Program's, Tanks Section is participating on the Missouri Waste Control Coalition to plan the 2012 Missouri Waste Coalition Conference at the Lodge of the Four Seasons Hotel at Lake of the Ozarks on June 17 through 19. This will be the fifth annual workshop in conjunction with the Missouri Waste Control Coalition events. This conference is targeted at environmental consultants who provide services to tank owners and operators. The conference provides consultants with information and training regarding the Missouri Risk-Based Corrective Action for petroleum tanks, new monitoring well regulations and other remediation topics.

The workshop will include departmental staff, along with private consultants, private laboratories and others. EPA may also participate in the conference as an exhibitor and in a support role.



# Missouri Department of Natural Resources - Hazardous Waste Program

## PETROLEUM STORAGE TANKS CLOSURE & CLEANUP - JANUARY 2012

CLOSURE													
Underground Storage Tanks	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	TOTAL
Closure Reports Reviewed	14	8	11	8	8	4	11	0	0	0	0	0	64
Closure Notices Approved	9	6	2	7	11	10	5	0	0	0	0	0	50
Number of Tanks Closed (Closure NFA)	23	48	57	29	21	15	17	0	0	0	0	0	210
CLEANUP													
Underground Storage Tanks	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	TOTAL
UST release files opened this month	2	2	3	1	0	0	3	0	0	0	0	0	11
UST cleanups completed this month	4	15	21	5	6	8	10	0	0	0	0	0	69
Ongoing UST cleanups	864	851	834	830	827	816	812	0	0	0	0	0	5,463
Aboveground Storage Tanks	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	TOTAL
AST release files opened this month	0	1	0	0	0	0	0	0	0	0	0	0	1
AST cleanups completed this month	1	0	6	1	0	1	0	0	0	0	0	0	9
Ongoing AST cleanups	168	170	164	163	164	164	164	0	0	0	0	0	252
Both UST and AST	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	TOTAL
Total release files-both UST & AST	0	0	0	0	0	0	0	0	0	0	0	0	0
Cleanups completed-both UST & AST	0	0	0	0	0	1	0	0	0	0	0	0	1
Ongoing cleanups-both UST & AST	31	31	31	31	31	30	31	0	0	0	0	0	43
Unknown Source	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	TOTAL
Total release files-unknown source	3	6	3	5	2	5	11	0	0	0	0	0	35
Cleanups completed-unknown source	1	2	1	1	3	0	0	0	0	0	0	0	8
Ongoing cleanups-unknown source	110	113	113	115	111	116	126	0	0	0	0	0	200
Documents Processed	137	159	171	165	144	171	149	0	0	0	0	0	1,096
*Reopened Remediation Cases	0	0	0	0	1	0	0	0	0	0	0	0	1

\*Reopened Remediation Cases was added 11/18/09- the cumulative total has been queried and a running total will be tracked/reported with the FY 2010 Tanks Section Monthly Reports.

Effective December 2008 tanks with unknown substance will be included in total figures.

Some measures are re-calculated each month for all previous months to reflect items added or edited after the end of the previous reporting period.

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Tanks

# Tanks

## PETROLEUM STORAGE TANKS CLOSURE & CLEANUP - FEBRUARY 2012

CLOSURE													
Underground Storage Tanks	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	TOTAL
Closure Reports Reviewed	14	8	11	8	8	4	11	6	0	0	0	0	70
Closure Notices Approved	9	6	2	7	11	10	5	3	0	0	0	0	53
Number of Tanks Closed (Closure NFA)	23	48	57	29	21	15	17	18	0	0	0	0	228
CLEANUP													
Underground Storage Tanks	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	TOTAL
UST release files opened this month	2	2	3	1	0	0	3	17	0	0	0	0	55
UST cleanups completed this month	4	15	21	5	6	8	10	6	0	0	0	0	75
Ongoing UST cleanups	864	851	834	830	827	816	812	848	0	0	0	0	5,472
Aboveground Storage Tanks	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	TOTAL
AST release files opened this month	0	1	0	0	0	0	0	0	0	0	0	0	1
AST cleanups completed this month	1	0	6	1	0	1	0	0	0	0	0	0	9
Ongoing AST cleanups	168	170	164	163	164	164	164	166	0	0	0	0	253
Both UST and AST	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	TOTAL
Total release files-both UST & AST	0	0	0	0	0	0	0	0	0	0	0	0	0
Cleanups completed-both UST & AST	0	0	0	0	0	1	0	0	0	0	0	0	1
Ongoing cleanups-both UST & AST	31	31	31	31	31	30	31	31	0	0	0	0	228
Unknown Source	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	TOTAL
Total release files-unknown source	3	6	3	5	2	5	11	1	0	0	0	0	36
Cleanups completed-unknown source	1	2	1	1	3	0	0	1	0	0	0	0	9
Ongoing cleanups-unknown source	110	113	113	115	111	116	126	99	0	0	0	0	1,220
Documents Processed	137	159	171	165	144	171	149	124	0	0	0	0	1,220
*Reopened Remediation Cases	0	0	0	0	1	0	0	0	0	0	0	0	1

\*Reopened Remediation Cases was added 11/18/09- the cumulative total has been queried and a running total will be tracked/reported with the FY 2010 Tanks Section Monthly Reports.

Effective December 2008 tanks with unknown substance will be included in total figures.

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# Missouri Department of Natural Resources - Hazardous Waste Program

## PETROLEUM STORAGE TANKS CLOSURE & CLEANUP - MARCH 2012

CLOSURE													
Underground Storage Tanks	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	TOTAL
Closure Reports Reviewed	14	8	11	8	8	4	11	6	13	0	0	0	83
Closure Notices Approved	9	6	2	7	11	10	5	3	13	0	0	0	66
Number of Tanks Closed (Closure NFA)	23	48	57	29	21	15	17	18	7	0	0	0	235
CLEANUP													
Underground Storage Tanks	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	TOTAL
UST release files opened this month	2	2	3	1	0	0	3	17	5	0	0	0	33
UST cleanups completed this month	4	15	21	5	6	8	10	6	11	0	0	0	86
Ongoing UST cleanups	864	851	834	830	827	816	812	848	861	0	0	0	5,484
Aboveground Storage Tanks	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	TOTAL
AST release files opened this month	1	2	1	0	0	2	0	0	0	0	0	0	6
AST cleanups completed this month	1	0	6	1	0	1	0	0	0	0	0	0	9
Ongoing AST cleanups	168	170	164	163	164	164	164	166	168	0	0	0	253
Both UST and AST	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	TOTAL
Total release files-both UST & AST	0	0	0	0	0	0	0	0	0	0	0	0	0
Cleanups completed-both UST & AST	0	0	0	0	0	1	0	0	0	0	0	0	1
Ongoing cleanups-both UST & AST	31	31	31	31	31	30	31	31	31	0	0	0	43
Unknown Source	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	TOTAL
Total release files-unknown source	2	0	0	2	1	1	3	4	5	0	0	0	18
Cleanups completed-unknown source	1	2	1	1	3	0	0	1	0	0	0	0	9
Ongoing cleanups-unknown source	110	113	113	115	111	116	126	99	82	0	0	0	1,345
Documents Processed	137	159	171	165	144	171	149	124	125	0	0	0	2
*Reopened Remediation Cases	0	0	0	0	0	1	0	0	1	0	0	0	98

\*Reopened Remediation Cases was added 11/18/09- the cumulative total has been queried and a running total will be tracked/reported with the FY 2010 Tanks Section Monthly Reports.

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Tanks